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2014 Membership Cards

For 2014, please remember to get your AMA insurance renewed before you renew your MMM membership. In order to have a 2014 MMM card issued, you need to provide a copy of your 2014 AMA card and driver's license and an updated application. The application is on line at <http://www.murocmodelmasters.org>. Click on "About Our Club". Club applications may be mailed to **Muroc Model Masters, Post Office Box 2194, Rosamond, CA 93560-2194**. Checks can be made payable to Muroc Model Masters. Membership dues are still just \$25 for the whole year. If applying in person, please see Ken Zakar, Treasurer, at the field or meetings.

New Officer Elections

October is the meeting to elect new officers for 2015. If any members would like to serve as an officer of the Muroc Model Masters RC Club please attend the meeting Tuesday night, October 14th at 1830 and "throw your hat into the ring". The people who have been nominated so far are:

President - Jack Bugaren
Vice-President - Red Jensen
Secretary - no one nominated as yet
Treasurer - Andrew Whitten
Safety Coordinator - Justin Hall
Newsletter / Webmaster - Damon Stewart.

If you would like to run for any of these positions please attend the meeting or call to have your name put on the ballot. →

Fuel: The Ins and Outs

by Mike Philips, North Dallas R/C Club
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What is the best fuel to run? I hear this question ring throughout the flight line repeatedly from new pilots and longtime fliers alike. Many wonder what the best fuel is for their airplane, costs, protection, and other things associated with fuel and glow/gas engines for our RC aircraft.

This article will cover a month-long adventure I was on to determine just what fuel I should be using, along with field tests, a lot of reading on the Internet, and conversations with experienced longtime fliers. I hope to be able to explain what might help anyone determine the best type of fuel for them to use.

Being fairly new to this hobby, and absolutely no expert in this field, I will explain this in the best possible way in an effort to have something to point to when somebody asks "What is the best fuel to use."

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MEETING PLACE AND TIME**Place:**

Rosamond Elementary School
Room 26

Time:

Second Tuesday @ 1830 (6:30pm)

Next Meeting: October 14, 2014

TOWER HOBBIES
TECHNICAL TIPS

Temporary Tape

Keep a small roll of clear tape in your field box. This way you can pull a strip off and can have a temporary place to hold small screws, bolts and washers while making quick repairs.

TOWER HOBBIES
HELPFUL HINTS

A "Smart" Phone Idea

Instead of packing up all your manuals for your car, radio, speed control, etc., try finding them online. Most manuals for any product can be found online (many on the Tower Hobbies web site), usually in the form of a PDF. Simply download all the manuals you may need and store them on your smart phone. Now the next time you're at the field or track and need to remember how many beeps it is to change a setting on your ESC, you will have the answer in the palm of your hand.

Brian Ashby

Fuel: The Ins and Outs (continued from page 1)

Disclaimer: This information is provided as is, with no warranty. Use this information at your own risk. Feedback is always welcome; please feel free to contact me if you like.

Fuel: model aviation fuel contains three elements:

- Alcohol
- Nitro
- Oil

Engine fuel for RC aircraft known as glow fuel contains three elements that are determined by the manufacturer and usually printed on the gallon jugs or cans purchased when you buy your fuel.

Out of these three elements, only two are combustible: the nitro and alcohol. In my testing during the past month, my main concern was the oils used in these fuels. Allow me to explain.

I generally run Saito four-cycle engines and these engines require slightly less oil than their two-stroke counterparts. Determining the oil content is what has taken me down this road because of a malfunction on my Saito 100 that is currently flying in my U-Can-Do 60. A deadstick over the runway, inverted at about three feet makes you start figuring on things you had not thought of in the past. The airplane survived, however the rush I got from getting the model flipped over and back on the ground had me thinking.

After further examination, I discovered that the engine had a stuck tappet in the tappet guide; this caused the exhaust pushrod to hang and rip teeth off of the cam gear— a really ugly site too.

Repairing the Saito 100 (or better said, an attempt to repair) found that any small debris in this motor will cause damage. Finding that this motor did the same thing on the second flight after the repair, I found that microscopic pieces of the cam were lodged in the tappet guide once again.

A full breakdown of this motor and repair once again, replacing the bearings (rusted and pitted) and a complete cleanup and soaking helped put it back in the air.

With this information in hand, I was able to determine that rust had played a part in the first engine malfunction and pieces of the cam gear on the second malfunction.

This all started with rust. Where does this rust come from? There is moisture in the engine. Where does this come from? The adventure was on its way ...

Moisture in your engine can cause damage, sometimes catastrophic damage and so, this takes us to the third element

listed: oil.

Glow engines run fuel like our everyday two-stroke motors with a combustible (alcohol, nitro) liquid and a lubricant (oil). Oil is an important piece of ensuring that your engine does not rust and also keeps the engine running smoothly and well lubricated to prevent heat.

Rust can build in your engine, whether it is stored for long periods or short periods of time and thus, we simply should have oil in the engine to prevent the rust.

When an engine runs, it takes in moisture from the fuel source and carburetor. Nitro acts as a magnet to moisture and will draw the moisture into your motor. Have you ever noticed when you spill any of this glow fuel it will quickly obtain a milky looking film over the top? This is the nitro pulling in the moisture from the air.

The oil used in the fuel plays a big part in protecting the engine from moisture and preventing rust long term and short term.

Many fuel companies list what they use in their fuels. Many use synthetic oil and this oil allows the motor to run more rpm's than castor-based oil will. Castor is a thicker, natural oil and will protect the motor (long term) better than a synthetic fuel. If the motor is running a lot where it does not have time to ever be dry from a synthetic fuel, then synthetic fuel may be okay to run with no issues.

Castor being a natural lubricant (hey, this stuff comes from beans) is thicker, and will leave residue all over the motor, which will protect it while in storage helping to prevent rust.

So, I decided that I would want a fuel that had castor to beat the rust, but also wanted a synthetic fuel that would loosen up the mixture so I could produce the RPM range I was looking for.

Let's look at some of the fuel tested here (percentages are based on volume):

- Cool Power 2-cycle fuel.
- 15% nitro/20% oil (10% low viscosity, 10% high viscosity)
- Cool Power 4-cycle fuel.
- 15% nitro/18% oil (9% low viscosity, 9% high viscosity)
- Cool Power 4-cycle fuel (castor based).
- 15% nitro/18% oil (9% castor, 9% synthetic)
- Ritch's Brew 2-cycle fuel
- 15% nitro/22% oil (known as the 11-11)

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MMM Meeting Minutes 9 September 2014

The September 2014 general membership meeting of Muroc Model Masters (MMM) was called to order by our club President Antwain Mallory at 6:37 P.M. The meeting was held at Rosamond Elementary School, Room 26 in Rosamond, CA. We had 11 members in attendance.

The reading of the September minutes was waived via unanimous vote. Jack Bugaren moved to waive and seconded by Ken Zakar.

Treasurer's Report:

Treasurer Ken Zakar gave the treasurer's report. Antwain Mallory moved the report be accepted and it was seconded by John Sturgeon.

Old Business:

We are still waiting to hear from 412th Communications Squadron Deputy Director on the 2.4 GHz use. Vice President Tony Accurso has submitted a follow up request to the Deputy Director to hopefully move forward on this important issue.

Red Jensen briefed the club on how NASA configures their 2.4 GHz radios when they fly on the lake bed which is what the club may have to do. He said the club needs to be proactive to get the base to allow the club to fly on 2.4 GHz or below 2436 MHz.

Antwain Mallory will work on getting the OK to give the Airspace Briefing to members that haven't had the pleasure but to get briefed one has to come to the meetings.

If you only have 2.4 GHz transmitters but really want to get back out to the field, Ron Scaggs has several club 72 MHz transmitters available to loan members for use, if you'd like to borrow one.

New Business:

Board nominations were taken during the September membership meeting and elections will be taking place during the October meeting. The nominations made during the meeting for the BOD are as follows:

President:	Jack Bugaren
Vice President:	Red Jensen
Secretary:	No one volunteered or was nominated
Treasurer:	Andrew Whitten
Newsletter/Web:	Damon Stewart
Safety:	Justin Hall

Volunteers are need to support the MMM Holiday Party in December. Jerry Rice volunteered to call Don Kissack about getting the hall at the Boulders at the Ranch I Mobile Home Park in Palmdale. Please get with BOD members if you'd be willing to assist with this fun evening.

Andy Whitten moved to close the meeting at 7:17pm, seconded by Ken Zakar.

In attendance were: Antwain Mallory, John Sturgeon, Jack Bugaren, Andrew Whitten, Ronald Scaggs, Red Jensen, Jerry Rice, Bruce Whisenhunt and Ken Zakar.

We would like to thank all of those members who participated in the meeting this month. These minutes were compiled by John Sturgeon on 25 September 2014. →

Fuel: The Ins and Outs (continued from page 2)

The goal was to use like brands to determine the best RPM and change the oil content. And with the findings, the Cool Power 15% 4-cycle, 100% synthetic has proven to provide the most rpm and power however, running this fuel comes at a cost.

Back to the rust issue. (Note: This is on a four-cycle engine, for a two-cycle; you would want the 20% oil). Running a fuel that is 100% synthetic can prevent rust in a short-term period however, my feeling and understanding is that the castor would assist in preventing rust.

So, how can you run the best fuel and get away from the worry of rust? If you run a fuel with castor, there is probably nothing to worry about. If you run a fuel without castor you should use after-run oil.

If you read a label on the Cool Power (this was amazing to me) it states "after-run oil not required." After all I had read through and understood, this was somewhat of a mystery to me. How can you run 100% synthetic fuel and not have to use after-run oil? They attribute this to low-viscosity synthetic fuel from what I gathered in the information online at Morgan Fuels.

In short, use my recommendation because this is based on what I know to be the best fuel for me. But, if you're running a fuel and it does well for you, then that is the fuel for you. In my opinion all fuel is about the same: different manufacturers are the difference in the production of fuel. I personally like Cool Power however; another brand with the same mix would probably run the same.

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